

Remarks

Reconsideration of the application is respectfully requested.

Upon entry of the foregoing amendments, claims 18-29 are pending in the application, with claims 18 and 27 being the independent claims.

The Office Action, on page 2, rejects claim 27 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action requests that Applicants clarify the structure/arrangement of the "short-circuit ring" structure relative to the copper wire. Applicants have amended claim 27 to render this rejection moot and therefore respectfully request that this rejection be withdrawn.

The Office Action, on pages 3-4, rejects claims 18-27 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,484,171 to McLoughlin in view of U.S. Patent No. 4,518,941 to Harada. Applicants presume, given the lack of discussion of claim 27 in connection with combination of references, that this rejection was intended to apply to claims 18-26, instead of claims 18-27. If this is not the case, Applicants respectfully traverse the rejection as applied to claim 27, as there is no discussion of how one of ordinary skill in the art would have combined the references to obtain the invention to obtain the invention as claimed in claim 27, nor is there given any motivation to combine the references in such a manner. In connection with claims 18-26, Applicant also respectfully traverse this rejection for the following reasons.

As per claim 18, the Office Action asserts that McLoughlin teaches all of the recited features of claim 18 except for the short-circuit rings being made of a thin conducting film sandwiched between the coil layers of at least one of the primary and secondary coils. To cure this deficiency, the Office Action asserts that Harada teaches a

transformer comprising thin conductive foil shielding means disposed between a plurality of coil layers. The Office Action further asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the shielding means arrangements of Harada in McLoughlin for the purpose of providing equipotential between the windings.

Noting Figures 6-9, McLoughlin shows primary and secondary coils having a metallic shield 28 separating them. There is no disclosure of any layers between windings of either the primary coil or the secondary coil.

Noting Figures 3 and 4, Harada shows layers of insulating paper and electrostatic shield foil between the wires of the primary winding and the wires of the secondary winding arranged as follows: secondary; paper; foil; insulator; foil; paper; primary (see col. 3, lines 19-40 of Harada for further discussion). This fails to teach the subject matter not disclosed in McLoughlin in that there is no *thin conducting film between layers of either the secondary coil or the primary coil*. First, there are no thin conducting films disclosed. Second, the layers that are disclosed (paper, foil, insulator, foil, and paper) are sandwiched, *not* between the layers of either the primary coil or the secondary coil, but between the primary winding and the secondary winding of a concentrically wound transformer.

For at least these reasons, Applicants respectfully submit that claim 18, as well as its dependent claims (claims 19-26, and new claim 29) are allowable over the cited references.

The Office Action, on page 4, rejects claim 27 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,817,066 to Scarpa in view of U.S. Patent No.

4,518,941 to Harada. Applicants respectfully traverse this rejection for the following reasons.

The Office Action asserts that Scarpa teaches all of the recited features of claim 27 expect for "the conductive short-circuit ring being a thin conductive film." To cure this deficiency, the Office Action asserts that Harada teaches a transformer comprising thin conductive foil shielding means disposed between a plurality of coil layers. The Office Action further asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the shielding means arrangements in Scarpa for the purpose of providing equipotential between the windings.

Applicants note that claim 27 has been amended to eliminate the language of "short-circuit ring" and to, instead, claim that the copper wire forming at least one of the primary and secondary coils is coated with a thin conducting film. Applicants respectfully submit that neither Scarpa nor Harada teaches this limitation.

Scarpa discloses concentrically wound primary and secondary coils of a transformer, where the conductor forming each coil is covered with a metallic sheathing (see col. 3, lines 24-45). The metallic sheathing is for the purpose of protecting an underlying insulation layer and is composed of a *non-magnetic metal* (like lead) or other non-magnetic material (see col. 3, lines 37-40). This can not be the claimed conductive thin film because: (a) a thin film layer would not suffice to protect the underlying insulation; and (b) the claimed sheathing is non-conductive (as it is non-magnetic).

Furthermore, as discussed above, Harada discloses forming foil, paper, and insulation layers separating a primary coil from a secondary coil. This, too, fails to teach or suggest the invention as claimed.

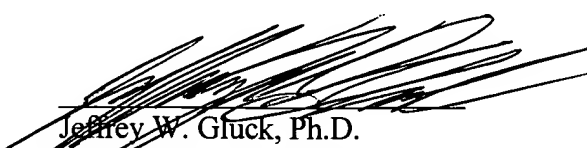
For at least these reasons, Applicant respectfully submit that claim 27 and its dependent claim (new claim 28) are allowable over the cited prior art.

Applicants have added new claims 28 and 29, depending from claims 27 and 18, respectively. Each of these claims adds the limitation that the primary and secondary coils are not concentrically wound. This is supported in Applicants' disclosure at least by Figs. 1, 3, 4, and 7, which show non-concentrically wound coils. Applicants respectfully submit that the cited references, either together or in combination, fail to teach or suggest all limitations of claims 28 and 29. The deficiencies of all of these references are as discussed above. Furthermore, Applicants note that both Scarpa and Harada are directed to concentrically-wound transformers.

In view of the above amendments and remarks, Applicants believe that all outstanding objections and rejections have been fully addressed and overcome or rendered moot. Consequently, Applicants respectfully request that the Examiner withdraw all outstanding objections and rejections. Should the Examiner have any questions regarding this matter, the Examiner is invited to contact one of the undersigned at the number listed below.

Respectfully submitted,

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